

SUMMARY

The Spent Nuclear Fuel (SNF) mission consists of the Spent Nuclear Fuel Project WBS 1.3.1.1 (Project Baseline Summary [PBS] WM01) and the follow-on, autonomous Canister Storage Building (CSB) Operations Project WBS 1.3.2.1 (PBS WM02). The existing SNF Project contractor organization is the caretaker of PBS WM02, though the work scope is not part of the SNF Project. There is no funding for PBS WM02 in FY 1998.

CSB construction project is 87 percent complete, compared to 91 percent planned. Schedule delays have resulted from the new Multi-Canister Overpack (MCO) sealing strategy. The Cold Vacuum Drying Project (CVD) is 62 percent complete compared to 73 percent planned. Schedule delays have resulted from funding constraints.

The Multi-Canister Overpack Handling Machine (MHM) turret was factory accepted and packed for shipment to the Hanford Site. An initial three Canister Storage Building systems were turned over to the startup organization for pre-operational tests.

The first Vacuum Process Skid (VPS) for the Cold Vacuum Drying (CVD) Facility was received at the Hanford Site. The initial skid will be used for process testing and model validation at the 306 Building prior to installation at the CVD Facility.

The remaining three Multi-Canister Overpack (MCO) transport casks were delivered in April 1998, several weeks ahead of schedule.

Detailed design for the 200 East Area Interim Storage Area (ISA) storage pads was completed. The pads will be utilized for storage of Fast Flux Test Facility and Light Water Reactor SNF inventories in dry storage casks.

The proposed "high confidence" schedule and budget requirements were submitted in April 1998. The schedule has been provided to EPA and Ecology to support Tri-Party Agreement negotiations. The DNFSB Recommendation 94-1 Implementation Plan change request will be submitted pending these negotiations.

Milestone performance (EA, DOE-HQ, Field Office, and RL) shows that two milestones (100 percent) were completed on schedule. There are five milestones forecast late and no overdue milestones.

ACCOMPLISHMENTS

- Submitted a proposed "high confidence" level schedule and budget profile.
- CSB construction is 87 percent complete.
- CVD project is 62 percent complete.
- The final three MCO transport casks were received on-site three months early.
- The first VPS for the CVD system was received on-site three months late.
- Detailed design for the 200 Area ISA was completed on schedule.

COST PERFORMANCE (\$M):

	BCWP	ACWP	VARIANCE
Spent Nuclear Fuels	\$86.6	\$92.4	(\$5.8)

The \$5.8 million (6.7 percent) unfavorable cost variance is mainly due to the MCO Sealing Strategy and CVD design changes.

SCHEDULE PERFORMANCE (\$M):

	BCWP	BCWS	VARIANCE
Spent Nuclear Fuels	\$86.6	\$108.3	(\$21.7)

The \$21.7 million (20 percent) unfavorable schedule variance is mainly due to the MCO Sealing Strategy. Other contributors include delays to construction due to NOC permits and CVD Design changes.

ISSUES

- 1) **Working to low-confidence schedule.** There is cost growth with no contingency to cover it. Design changes continue to impact schedule.
Strategy/Status: A realistic schedule and budget were developed and will be discussed with the regulators. Alternate funding sources are being pursued, and a manager assigned to manage technical issue closure.
- 2) **Closure of major technical issues.** Closure of major technical issues has a potential impact on designs/safety analysis.
Strategy/Status: Actions and target resolution dates were identified. The decision not to remove aluminum hydroxide beyond routine cleaning appears feasible. Thermal-gravimetric analysis (TGA) tests are scheduled to resolve oxidation rate issue and eliminate the need for the remaining whole element tests.

COST VARIANCE ANALYSIS: (\$5.7M)**WBS/PBS****Title****1.3.1.1/WM01****Spent Nuclear Fuel**

Description and Cause: The 6.7 percent unfavorable cost variance is due mainly to the following:

- Approximately \$4.0M related to Sealing Strategy activities authorized, but not yet funded.
- Contracts under accrued: MCO, Cask/Transport, Fuel Relocation Operations, and K Basin Facility Projects
- Basin Operations & Maintenance costs overrunning in Patrol assessment, fabrication shop overhead rates, and valve bonnet USQ (\$984,000).
- Passbacks for indirect pools causing temporary underrun; however, this will be offset by reduced program funding.
- CVD design modifications and SAR costs higher than anticipated (\$2.8M).
- K Basin Facility crane (\$868,000).

Impact: K Basin sub-projects and CVD are behind schedule to the current baseline. Project impact is being evaluated.

Corrective Action: Baseline change request BCR#SNF-98-006 to address the MCO sealing strategy was approved by RL. K Basin and CVD construction holds have been released. The SNF project submitted a preliminary high probability baseline schedule to RL and continues to refine a final baseline schedule and budget

SCHEDULE VARIANCE ANALYSIS: (\$21.7 M)**WBS/PBS****Title****1.3.1.1/WM01****Spent Nuclear Fuel**

Description and Cause: The 20 percent unfavorable schedule variance is mainly due to the following:

- MCO and Cask fabrication delays (\$657,000).
- Delays in sludge sample characterization activities due to change in testing requirements(\$218,000).
- Facility upgrades, IWTS construction and KW Fuel Retrieval Mods delayed due to NOC permitting issue resolution (\$9.95M).
- SAD issuance delayed due to hazard analysis design incorporation in FRS.
- CVD construction behind due top funding limitations, design review delays, and SAR activities (\$3.5M).
- Elements of the CSB Project on hold pending MCO Sealing Strategy resolution (\$4.4M).
- Fuel Relocation activities (\$1.3M).

Impact: K Basin sub-projects and CVD are behind schedule to the current baseline. Project impact is being evaluated.

Corrective Action: Baseline change request BCR#SNF-98-006 to address the MCO sealing strategy was approved by RL. K Basin and CVD construction holds have been released. The SNF project submitted a preliminary high probability baseline schedule to RL and continues to refine a final baseline schedule and budget.

MILESTONE EXCEPTION REPORT

<u>Number/WBS</u>	<u>Level</u>	<u>Milestone Title</u>	<u>Baseline Date</u>	<u>Forecast Date</u>
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OVERDUE - 0

FORECAST LATE - 5

S04-97-355 1.3.1.1	RL	Complete KW FRS Construction	7/16/98	12/28/98
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Cause: Due to concerns regarding technical content and format of Safety Analysis Documents (SAD) it is necessary to revise the content and format of the SAD for Fuel Retrieval System (FRS), Integrated Water Treatment System (IWTS), and Cask Loadout System (CLS) to comply with requirements.

Impact: The time required to prepare the criteria documents and rework/reformat of the existing SAD, which were completed for FRS and IWTS, will delay the Critical Decision 3B authorization. The SAD's are required before installation work can proceed in the KW Basin.

Corrective Action: SAD preparation will proceed on an alternative approach consisting of submitting limited safety analysis documents.

S03-98-611 1.3.1.1	RL	SAR K Basin Submittal	8/18/98	11/19/98
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Cause: The delay is caused by extensive comments on the process system.

Impact: Design activities were delayed approximately two months while the architect/engineer performed a compliance check on existing designs.

Corrective Action: Redesign efforts are being undertaken and delivery dates will be revised.

S05-98-004 1.3.1.1	RL	MCO Available to Operations	8/7/98	8/13/98
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Cause: Delays associated with fabricator QA issues and continuing delays in the finalization of technical issues.

Impact: Six day delay in the completion of Oregon Iron Works (OIW) fabrication activities for first five MCOs.

Corrective Action: Awaiting Contracting Officer's direction to proceed with implementing all technical, cost, or schedule baseline documents and system changes necessary to reflect BCR#SNF-98-006.

MILESTONE EXCEPTION REPORT

<u>Number/WBS</u>	<u>Level</u>	<u>Milestone Title</u>	<u>Baseline Date</u>	<u>Forecast Date</u>
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S07-97-054 1.3.1.1	RL	SAR CSB Final Submittal	8/14/98	9/16/98
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Cause: The project technical baseline was changed from a pressure management basis to a sealed MCO basis.

Impact: The technical inputs to the SAR were delayed, thus moving out the completion date.

Corrective Action: Awaiting Contracting Officer's direction to proceed with implementing all technical, cost or schedule baseline documents and system changes necessary to reflect BCR#SNF-98-006.

S04-97-620 1.3.1.1	RL	Complete KW IWTS Construction Installation	9/3/98	12/15/98
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Cause: Delay to due funding constraints.

Impact: The work scope has to be planned into FY 1999.

Corrective Action: Work around plans are being developed to recover the schedule slip. Available funding may impact implementation of this corrective action.